

## **RACE TO THE PAYCHECK: MERIT PAY AND THEORIES OF TEACHER MOTIVATION**

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### **ABSTRACT**

*Recent reforms in teacher evaluation tie these evaluations to student performance as measured by test scores and merit pay has been offered as a way to reward high test scores and improve teacher performance. Thus, the federal Race to the Top program has led several states toward teacher evaluation instruments that incorporate outcome data in the form of student achievement. In most states, this is the first step in the plan to institute a pay for performance program for teachers, also known as merit pay. This paper analyzes the concept of merit pay through the lens of equity theory. Equity theory provides a framework to organize a workplace that is equitable, consistent, and free of self-interest. Readers are challenged to consider the implications of merit pay in light of equity theory and resultant issues for educational policy and practice.*

### **RACE TO THE PAYCHECK**

Merit pay has long been a favored method in both the public and private sector to motivate employees and produce higher outcomes (Shaw, Duffy, Mitra, Lockhart, & Bowler, 2003). Despite mixed results on the effectiveness of merit pay, the public education sector has implemented merit pay programs throughout the 20<sup>th</sup> and 21<sup>st</sup> centuries (Cohen & Murnane, 1985; Podgursky & Springer, 2011). Some have lauded merit pay, asserting that without rewarding teachers monetarily on the quality of work, “there is no incentive for a teacher to do a good job” (Figlio & Kenny, 2007, p. 901).

There are inconsistencies with findings related to the effectiveness of merit pay (Arrowsmith & Marginson, 2010; Dee & Keys, 2004; Figlio & Kenny, 2007; Kellough & Lu, 1993; Marsden & Richardson, 1994; Schaubroeck, Shaw, Duffy, & Mitra, 2008; Springer et al., 2010). Some scholars have attributed merit pay to increased productivity and motivation (Bloom & Milkovich, 1998; Chang, 2006). Other researchers report that merit pay has an

adverse effect on teacher productivity and motivation (Arrowsmith & Marginson, 2010; Kellough & Lu, 1993; Marsden & Richardson, 1994; Scott, Shaw, & Duffy, 2008; Shaw et al., 2003). Not only are there differences in the findings of merit pay studies, there are differences in the conceptual frameworks that scholars have used to examine this important topic.

Conceptual frameworks serve as lenses into a phenomenon and provide varying perspectives on the topic. Variables are operationalized in research studies depending upon the conceptual framework employed (Hoy & Miskel, 2008). Researchers have analyzed merit pay through the lens of agency theory and expectancy theory with mixed results (Bloom & Milkovich, 1998; Chang, 2006; Cohen & Murnane, 1985; Figlio & Kenny, 2007; Kellough & Lu, 1993; Oah & Lee, 2011; Scott et al., 2008; Shaw et al., 2003; Sindelar, 2008). To date, few studies have examined the topic of merit pay through the lens of equity theory. Some have referred to equity theory as organizational justice, or creating environments that are equitable, consistent, and free of self-interest (Greenberg & Colquitt,

2005). The purpose of this paper is to use equity theory to examine merit pay for public school teachers in a review of empirical studies over the past decade. Readers are challenged to consider the implications of merit pay in light of equity theory and resultant issues for educational policy and practice.

### MERIT PAY AND TEACHER EVALUATIONS

In the state of Tennessee, administrators and policymakers are using federal *Race to the Top* funds to reform the way teachers are evaluated. The new teacher evaluation model leads to a merit pay process to reward teachers for “improved student achievement and accept[ing] more responsibilities for lifting up their schools” (Sarrio, 2009). There is a relationship between teacher effectiveness and student achievement; teachers can greatly enhance and impact student success. Furthermore, teacher evaluations have traditionally been instructionally-based with a focus on teacher pedagogy and instructional practices. However, the difference in the proposed evaluation process is that merit pay will incentivize student performance as a construct of teacher performance. Thus, the federal *Race to the Top* program has led several states, including Tennessee, toward teacher evaluation instruments that incorporate outcome data in the form of student achievement. In most states, this is the first step in the plan to institute a pay for performance program for teachers, also known as merit pay.

Merit pay has existed since the modern public education system (Cohen & Murnane, 1985). Currently, teacher compensation in most states is primarily based on education level and years of experience (Podgursky & Springer, 2011). This has not always been the case; incentive systems were more common in the early 20<sup>th</sup> century (Figlio & Kenny, 2007). Historically, merit pay programs have emerged in response to significant events where policymakers have blamed education as the impetus or cited education as the solution. Merit pay programs wanted after World War II, resurging after the launch of Sputnik, faded once again, and resurrected after the publication of *A Nation at Risk* (Pearce & Perry, 1983). Merit pay is once again becoming part of many educational reform movements in the United States (Figlio & Kenny, 2007). As in the past, policymakers are criticizing public education for the downward turn in the country’s economic condition and world standing. In addition to this reaction-response merit pay implementation cycle, states that have long histories of merit pay are still holding on to these pay systems even though the results do not show they have garnered any gains in student achievement (Kellough & Lu, 1993).

### THEORY

In the 1990s, agency theory emerged as the main theory guiding the research on merit pay (Bloom & Milkovich, 1998). Agency theory is based on the assumption that people want to avoid risk or hard work and a supervisor must account for this by creating a compensation system that compels the worker to work while minimizing risk (Jensen, 1983). This theory is inadequate for studying merit pay in the current public education system since numerous studies have found teachers to be motivated by reasons other than economic (Besley & Ghatak, 2005; Cohen & Murnane, 1985; Kellough & Lu, 1993; Marsden & Richardson, 1994). The overarching assumption in agency theory is that agents, or teachers, need an economic reason to show up to work every day. Inherently absent in teacher merit pay studies with the lens of agency theory is the accommodation or inclusion of intrinsic variables of motivation, specifically non-economic variables in light of overwhelming evidence that a vast majority of public school teachers are intrinsically motivated.

Expectancy theory has also been used as a theoretical basis for examining merit pay (Kellough & Lu, 1993). Expectancy theory assumes that people “make decisions among alternative plans of behavior based on their perceptions or expectations of the degree to which given behaviors will lead to desired outcomes” (p. 47). When scholars have applied the constructs of expectancy theory to merit pay, they have likewise positioned teachers as economically motivated. In expectancy theory, teacher expectations are examined as a function of behavior. Studies have demonstrated that teachers’ pedagogical decisions (or behaviors) are made with the expectations (or motivations) of increased student learning. Expectancy theory posits teacher behavior is a function of expectations for an increase in compensation.

Therefore, when examining the topic of merit pay, neither agency theory nor expectancy theory is appropriate since these two theories do not accommodate non-economic variables or motivations associated with teacher performance. This could explain why merit pay has often been unsuccessfully adopted by school systems and is usually attacked by teacher unions (Arrowsmith & Marginson, 2010). A better way to examine merit pay, teacher behaviors, and student achievement is to utilize equity theory as the conceptual framework.

Equity theory is based on perceived fairness and whether individuals believe they are being treated fairly in an organization (Greenberg & Colquitt, 2005). Workers’ inputs and outputs are considered in equity theory. Applying equity theory to merit pay, compensation would be an input and work would be an output. One of the tenets

of equity theory is that people are demotivated to work when they perceive their output is not equal to their input. If their input is intrinsic, then workers can directly relate their output to their input; however, if the focus of the input is economic, then often workers have trouble relating their input to their output (Shaw et al., 2003). To illustrate, teachers who teach AP courses expect to give more output in the form of planning, grading, and preparation while their input is in the form of prestige for teaching the course and student scores on the AP exam both of which validate the extra time it takes to teach the course.

Guided by equity theory, merit pay poses some potential threats to teacher morale and teaching performance. The ultimate goal of education is to advance student-learning (Wiggins & McTighe, 2007). If teachers are focused on student learning only as a function of their outputs, then their behaviors, or inputs, will exemplify this. When merit pay systems are introduced, however, the goal of the teacher changes to include outcomes that result in increased compensation. If goals are mastery-based, then they can enhance the performance of an individual worker because mastery will then become the input the worker expects for their output. If goals are monetary, then typically they can have dangerous “side effects”, such as focusing attention “so narrowly that people overlook other important features of a task” (Ordonez, Schweitzer, Galinsky, & Braverman, 2009, p. 6). In education, this type of narrow focus has been manifested by unnoticed behaviors such as not teaching a rich curriculum in a narrow focus on state exams. More significantly, there have been increased occurrences of cheating on state-wide exams. While most teachers might not resort to cheating because of compensation, the brain reacts differently to monetary rewards than it does to other inputs (Knutson, Adams, Fong, & Hommer, 2001). This dopamine reaction could explain why goals and thus behavior changes once rewards are introduced. In essence, the teacher becomes “addicted to rewards” (Sovorov, 2003, para. 4) and will change her focus to earn the reward instead of, or in addition to, student learning. As a result, merit pay carries some risk of changing teachers’ focus and, as a result, the mission of the school that a traditional compensation system does not. Alfie Kohn’s *Punished by Rewards* addressed the many unintended consequences that occur in educational settings when behavior is linked to rewards (Kohn, 1999).

The traditional teaching salary structure is viewed by many economists as inequitable, and scholars have examined whether unbalanced salaries for starting teachers cause teachers to leave their current school systems or to leave the career entirely (Podgursky & Springer, 2011). One limitation of equity theory as it applies to the salary structure is that teachers are giving similar outputs but receiving different inputs. However, teachers who are

motivated by intrinsic motivators such as the mission of their school do not need rewards because the effects of the intrinsic already maximize productivity (Besley & Ghatak, 2005, p. 627). Moreover, Frey (1997) asserts that monetary rewards can have a negative effect on intrinsic motivation and productivity, particularly for those who are primarily intrinsically motivated. As a result, the input-output assumption put forth by equity theory is not a good fit for education because it only addresses teachers who value the financial motivation to teach and ignores those who cite other reasons for choosing the career.

### DISCUSSION AND POLICY IMPLICATIONS

Equity theory presents three major limitations of merit pay for teachers. The first is the limitation of what teachers determine is fair. In merit pay systems, teachers who are doing the same job may not receive the same pay. A second implication for practice is the process of deciding how merit pay is allocated and implemented. Third, a final implication for practice and limitation of merit pay in the lens of equity theory is that teachers of low aptitude, low performing students can be unnecessarily punished for student scores that are not under the teacher’s direct control.

Important in the dialogue is that student achievement involves the student *and* the teacher. A computational algorithm to calculate teacher pay as a function of student achievement, regardless of its sophistication, will be unable to capture and separate student effort from teacher effort. Giving teachers merit pay for student achievement on standardized tests has its own set of problems. Since not every teacher has a student-achievement test attached to her subject, merit pay could cause some “deterioration in the atmosphere at work, producing a degree of [faculty] jealousies and a decline in morale” (Marsden & Richardson, 1994, p. 258).

If merit pay is rewarded based on evaluations, then teachers may focus more on bureaucratic process of having good teacher evaluations. It seems logical that these evaluations would result in better teaching performance and increased student achievement, but students of teachers who were part of Tennessee’s former merit pay system called “Career Ladder” did not show significant gains on standardized tests based on a matrix of evaluations and other extra teaching duties. Instead, it was criticized “as overly burdensome [and] stressed cunning and endurance rather than merit” (Dee & Keys, 2004, p. 475).

If a teacher’s focus is on student achievement on standardized-tests, then this could result in the documented unintentional, but consequential negative behaviors by teachers who want to earn merit pay based on the results of the

tests. Merit pay could produce results similar to punitive procedures that have resulted in teachers falsifying results of standardized tests.

Deciding who deserves to receive merit pay is also problematic from a point of view of equity. If teacher observations are used to determine merit pay, then under one of the current models that Tennessee is using, teachers with tenure are only observed for fifteen minutes on four separate occasions. In a 180 day school year, this does not seem adequate to determine how well someone is teaching. A more robust model for evaluating teachers would be necessary, but it is unlikely teachers would invest the time into it to receive the reward (Dee & Keys, 2004). In addition, many workers are suspicious of having their pay tied to performance (Marsden & Richardson, 1994), and often feel like politics are part of what should be an objective evaluation (Salimaki & Jamsen, 2010). Percy and Pearce (1983) claim that the problems in this performance appraisal aspect make merit pay fail as a source of motivation.

Despite all of the considerations, many school systems and the state of Tennessee continue exploring the adoption of merit pay systems. Indeed, Mayor Rahm Emanuel recently announced the acquisition of \$5 million to fund a merit pay plan for principals that will expand to teachers (Spielman and Rossi, 2011). In the face of research and theories that suggest that merit pay does not work in public education, it is still cyclically considered a bandage, if not panacea, for improvements in education. The public sector is loath to dismiss merit pay as an option because of its intuitive appeal as something that works in business (and where is the evidence that it works in business?); that teachers are finally going to be paid what they're worth; it saves money by only rewarding teachers who deserve it; and, it works if you remove the glitches (Kellough & Lu, 1993). Negative aspects of merit pay can include poor teaching practices that seek only improved student performance on exams, lowered teacher morale, and a lowered organization-based self-esteem (Scott, Shaw, & Duffy, 2008). Whether examining merit pay through agency, expectancy, or equity theory, merit pay offers more problems than solutions.

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